

CLAIMS

What is claimed is:

1. A semiconductor wafer transfer apparatus comprising:
a wafer supporting block to support a semiconductor wafer;
a casing formed along a moving path of the wafer supporting block and having a guide slot through which a part of the wafer supporting block passes;
a driving part which is accommodated in the casing and moves the wafer supporting block;
a connection part which connects the driving part with the wafer supporting block; and
a shield part which shields the driving part from the guide slot.
2. The semiconductor wafer transfer apparatus according to claim 1, further comprising a guide unit which includes:
a guide member provided inside the casing and having a first end combined to the connection part and a second end combined to the wafer supporting block; and
a guide rail which is attached to a floor of the casing and guides the guide member, wherein the shield part is provided between the guide unit and the driving part.
3. The semiconductor wafer transfer apparatus according to claim 2, further comprising a first auxiliary shield part which is provided inside the casing and shields the connection part from the guide slot.
4. The semiconductor wafer transfer apparatus according to claim 3, further comprising a second auxiliary shield part which is provided in a lower part of the guide slot and shields the guide unit from the guide slot.
5. The semiconductor wafer transfer apparatus according to claim 1, wherein the driving part includes:
a belt which is connected to the connection part and moves the connection part;
pulleys which engage with the belt; and
a driving motor which drives at least one of the pulleys.

6. The semiconductor wafer transfer apparatus according to claim 5, wherein:
the belt is a timing belt, and
the pulleys engage with the timing belt.

7. The semiconductor wafer transfer apparatus according to claim 1, wherein the
shield part has a plate like shape.

8. The semiconductor wafer transfer apparatus according to claim 1, wherein the
shield part shields the driving part so as to prevent dust and particles from leaking out through
the guide slot.

9. The semiconductor wafer transfer apparatus according to claim 2, wherein the
guide unit further includes one or more ball bearings which are provided between the guide
member and the guide rail.

10. The semiconductor wafer transfer apparatus according to claim 4, wherein:
the shield part primarily prevents dust and particles from leaking out through the guide
slot,
the first auxiliary shield part secondarily prevents the dust and particles from leaking out
through the guide slot, and
the second auxiliary shield part further prevents the dust and particles that have passed
through the first auxiliary shield part from leaking out through the guide slot.

11. A semiconductor wafer transfer apparatus comprising:
a wafer supporting block to support a semiconductor wafer;
a casing formed along a moving path of the wafer supporting block and having a guide
slot through which a part of the wafer supporting block passes;
a driving part which is accommodated in the casing and moves the wafer supporting
block;
a connection part which connects the driving part with the wafer supporting block; and
a shield part which partitions the casing so as to limit communication between the driving
part and the guide slot.

12. The semiconductor wafer transfer apparatus according to claim 11, wherein the shield part shields the driving part so as to prevent dust and particles from leaking out through the guide slot.

13. The semiconductor wafer transfer apparatus according to claim 11, further comprising a guide unit which includes:

a guide member provided inside the casing and having a first end combined to the connection part and a second end combined to the wafer supporting block; and

a guide rail which is attached to a floor of the casing and guides the guide member.

14. The semiconductor wafer transfer apparatus according to claim 13, wherein the shield part includes:

a first shield part which is provided between the guide unit and the driving part;

a second shield part which is provided between the connection part and the guide slot;

and

a third shield part which is provided between the guide unit and the guide slot.

15. The semiconductor wafer transfer apparatus according to claim 13, wherein the guide unit further includes one or more ball bearings which are provided between the guide member and the guide rail.

16. The semiconductor wafer transfer apparatus according to claim 11, wherein the shield part prevents an outflow of dust and particles from the casing to the outside of the casing.